Applicant: Hans-Christoph MAGEL

Docket No. R.305062 Preliminary Amendment

**AMENDMENTS TO THE CLAIMS:** 

This listing of claims will replace all prior versions, and listings, of claims in the

application:

**Listing of Claims:** 

Claims 1-12. (Canceled)

13. (New) A servo valve for actuating a pressure booster which is assigned to a fuel injector,

the pressure booster having a work chamber which is separated by a booster piston from a

differential pressure chamber, and the pressure change in the differential pressure chamber of

the pressure booster is effected via the servo valve, to which a switching valve activating it is

assigned, the servo valve comprising:

a valve housing

a control chamber which can both be made to communicate with a high-pressure

source and pressure-relieved into a low-pressure-side return, and

a pressure shoulder acting in the closing direction of the valve piston is embodied

between the control chamber and the hydraulic chamber, and control edges without a

common opening phase are embodied on the valve piston for generating a fast closing motion

at the valve piston.

14. (New) The servo valve according to claim 13, wherein the valve piston comprises both a

first valve piston part and a reduced-diameter second valve piston part.

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15. (New) The servo valve according to claim 14, wherein an overlapping length that forms

a slide seal is embodied on the reduced-diameter valve piston part.

16. (New) The servo valve according to claim 14, further comprising one or more flow

conduits are embodied on the reduced-diameter valve piston part of the valve piston

17. (New) The servo valve according to claim 14, wherein the dividing point between the

first valve piston part and the reduced-diameter second valve piston part is located in a low-

pressure-side chamber, and face ends of the valve piston parts are acted upon by high

pressure.

18. (New) The servo valve according to claim 13, further comprising a guide portion in the

servo valve housing that originates at the control chamber, the guide portion discharging into

a second hydraulic chamber acted upon by high pressure.

19. (New) The servo valve according to claim 18, wherein the guide portion of the first

valve piston part is embodied without valve pockets in the servo valve housing.

20. (New) The servo valve according to claim 18, further comprising a further seal

embodied on the valve piston and cooperating with a housing part of a multi-part valve

housing.

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21. (New) The servo valve according to claim 20, wherein the further seal is embodied as a

flat seat.

22. (New) The servo valve according to claim 18, further comprising integrated flow

conduits that enable an outflow of fuel embodied on the valve piston above an overlapping

length with a second housing part of the multi-part housing.

23. (New) The servo valve according to claim 13, wherein a pressure face that is operative

in the opening direction of the servo valve piston is acted upon by the pressure prevailing in

the differential pressure chamber.

24. (New) The servo valve according to claim 13, wherein when the servo valve is

deactivated, the low-pressure side is sealed off from the high-pressure side by a guide portion

of the valve piston.